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AMSAT NEWS SERVICE
ANS-321

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

* FUNcube-1 Dashboard Software Released
* FUNcube Dashboard/Data Warehouse Registration
* Hector Martinez, CO6CBF/KF5XYV Earns US Technician License
* FUNCube Handbook is Available
* Election Results from AMSAT-India
* ESA Astronaut Luca Parmitano Back Home - Made 231 Random QSO’s
* FUNCube PreLaunch Keps
* Crossband Transponders on AMSAT Argentina November 23 Balloon Flight
* Happy Birthday to AO-7!
* KySat-2 Announces Telemetry Dashboard Software and Tracking Aids
* Symposium Photos for Journal Requested by December 1
* ARISS News
* Satellite Shorts From All Over

SB SAT @ AMSAT $ANS-321.01
ANS-321 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 321.01
>From AMSAT HQ SILVER SPRING, MD.
DATE November 17, 2013
To All RADIO AMATEURS
BID: $ANS-321.01

FUNcube-1 Dashboard Software Released

In advance of the FUNcube-1 launch next week on November 21st at 07:10:11 UTC, this first release of the FUNcube Dashboard User Interface software is now available for download here: http://funcube.org.uk/working-documents/funcube-telemetry-dashboard

This software, when used with a FUNcube Dongle or other SSB capable VHF receiver, will decode and display all the 58 telemetry channels, all the on-board status flags and also the Fitter messages from the spacecraft.

The FUNcube Dashboard will also enable users to upload the telemetry they are receiving to a central Data Warehouse so that others around

the world can see what is happening on board.

A fully illustrated set of installation and operating guidance notes can also be downloaded from that page.

Additionally we also have some IQ and audio files available here that can be used for testing.
http://funcube.org.uk/working-documents/telemetry-examples/

Full details of the telemetry format, which has considerable heritage from AO-40, can be found here.
http://tinyurl.com/ANS321-FuncubeTestFiles

We are very grateful to our software development team for their efforts in developing the Dashboard and we look forward to your feedback. Please let us have questions and experiences at the FUNcube forum at http://forum.funcube.org.uk/viewforum.php?f=3

[ANS thanks Graham G3VZV for the above information]

FUNcube Dashboard/Data Warehouse Registration

With the release of the FUNcube Dashboard and it's associated documentation, we have also
released help info on how to register your Dashboard for use with the Data Warehouse.

Please visit: http://forum.funcube.org.uk/viewtopic.php?f=3&t=18

If you have any follow up questions, please submit them as replies on the forum so that others can see them.

[ANS thanks Dave G4DPZ for the above information]

Hector Martinez, CO6CBF/KF5XYV Earns US Technician License

The idea was first conceived during the 30th AMSAT Space Symposium in Orlando 2012 by Clayton Coleman W5PFG after hearing Hector Martinez CO6CBF’s desire to operate with his own callsign during his visit to the United States. There is no reciprocal agreement between the US and Cuba. At that time he was able toidentify three Volunteer Examiners but they lacked the testing materials to test Hector at that time.

Fast forward one year to the 31st AMSAT Space Symposium in Houston. A few weeks before the Symposium Clayton contacted the AMSAT-BB asking for AMSAT members who were ARRL or W5YI VEs to contact him in order to see if we might be able to set up a testing session for Hector. Clayton received many responses and four ARRL VEs stepped up to assist the effort. Douglas Phelps K9DLP took the lead as Team Liaison and brought testing and filing materials with him. Others joining the team included EMike McCardel KC8YLD, Patrick Stoddard, WD9EWK, and Jerry Buxton N0JY

Late Thursday evening, rather serendipitously, three of the VEs happened to find themselves in the same place at the same time.

Shortly thereafter Clayton W5PFG, Patrick WD9EWK and Hector also happened by. The team immediately went into planning mode to set up a time and place to conduct the test, preferably early Friday. Then came the suggestion, why wait, everyone is here, why can't we do it now? When the team asked Hector if now would be good his immediate response was, "Yes, yes, NOW!"

The team went to their rooms to collect their credentials and materials and then convened 15 minutes later in a quiet, well lit area of the hotel lobby and presented Hector with a copy of the Technician Exam. Hector took and passed the exam. The next morning the exam materials and application were forwarded onto the ARRL VEC by means of US Postal Priority mail which assured delivery by Monday noon, in hope that his license would be granted before his return on Wednesday. At shortly before 3pm CST Monday Hector's license cleared the FCC ULS database and he officially was granted callsign KF5YXV. We can't laud Maria Somma AB1FM and the folks at the ARRL enough for their efficiency.

Minutes after all became aware that Hector had been assigned his callsign, he began working the birds. Clayton reports, "We had a blast on Monday evening through Wednesday working every satellite pass available to us. He was as exciting to watch as a kid getting his license for the first time." Hector adds "Thanks very much for all your help and the great time! It was very fun to operate for first time on AO-7 mode B."

Congratulations to Hector and all who participated in this expression of International Goodwill.

[ANS thanks Clayton W5PFG and EMike KC8YLD for the above information]

FUNCube Handbook is Available on funcube.org

The FUNCube handbook is now at the funcube.org website.
http://tinyurl.com/ANS321-FUNCubeHandbook

A French and Italian version has also been published

[ANS thanks Richard G3RWL for the above information]

Election Results from AMSAT-India

The AGBM was held as per schedule and all points as per the agenda were discussed and closed. Following members have been elected as office bearers of AMSAT INDIA.

President - Ramesh Ramsubbu, VU2RMS
Vice President - Dr. M.S.Giridhar, VU2MGD
Secretary - Nitin Muttin, VU3TYG
Treasurer- Venkatesh Katta, VU3ICC
Technical Director- M.R. Raghavendra, VU3GTI
Director, Educational Relations - B.A Subramani, VU2WMY

Executive Committee

Somashekhar Kummur- VU3HCJ
Ganesan. N- VU3GEK
Somashekhar- VU3JBA
Dr. Raveendranath P - VU2RVJ
K Balaji- VU3PZA
Air Cmde V.Subramanian - VU2UV

We would like to thank all those members who attended the AGM and participated actively in the proceedings. We would also like to thank all those members who wished (by email and phone) us for a successful AGM.

[ANS thanks Nitin VU3TYG for the above information]

ESA Astronaut Luca Parmitano Back Home - Made 231 Random QSO's

11 November 2013 ESA astronaut Luca Parmitano, Russian commander Fyodor Yurchikhin and NASA astronaut Karen Nyberg returned to Earth, landing in the Kazakhstan steppe. Their return flight, landing at 02:49 GMT (03:49 CEWT), was in the same Soyuz TMA-09M spacecraft that flew them to the International Space Station on 29 May.

Luca spent five months on the International Space Station for his VOLARE mission under a bilateral agreement with the Italian space agency and NASA. He conducted more than 30 scientific experiments, performed two spacewalks and operational tasks as well as maintaining the orbital outpost.

Luca Parmitano has proven to be an enthusiastic and passionate radioamateur with great availability for ARISS school contacts. When all questions prepared by the students could not be answered during the scheduled pass, Luca used to come back whenever possible to continue the space talk on the following orbit.

In terms of ARISS school contacts performed during a single expedition, Luca Parmitano is 4th in ranking of the ISS astronauts. Luca expressed his feelings regarding amateur radio in a message entitled "Message in a bottle", published on the ESA blog. Luca Parmitano went beyond his mandate as ISS crew member and HAM operator for ARISS school contacts, performing many random contacts with hams on earth.

Francesco De Paolis, IK0WGF served as manager for the IRØISS logbook, collecting reports from ISS for most of the random contacts, totaling 231 QSO's.

Our thanks to Luca Parmitano who did the effort to log the QSO's and to forward the log to earth for almost all random contacts.
All details about IRØISS random contacts during the "Volare" mission are available at:
https://reports.zoho.com/ZDBDataSheetView.cc?DBID=412218000000293001

Many thanks also to ARISS Europe School Contacts Manager Francesco De Paolis IK0WGF for his great work and support.

[ANS thanks Gaston Bertels ON4WF for the above information]

FUNCube PreLaunch Keps

Here are some provisional pre-launch keps. We may well receive an updated set nearer to the day of launch but we expect that these should be good enough for the first few hours/days after launch.

```
Satellite: FUNCUBE-1
Catalog number: 99991
Epoch time:      13325.309563080
Element set:     1
Inclination:      97.7956 deg
RA of node:       38.2570 deg
Eccentricity:    0.0059925
Arg of perigee:   198.5190 deg
Mean anomaly:     336.5388 deg
Mean motion:   14.77841394 rev/day
Decay rate:       0.00000106
Epoch rev:           1

FUNCUBE-1
1 99991U 00000    13325.30956308  .00000106  00000-0  10000-3 0 00010
2 99991 097.7956 038.2570 0059925 198.5190 336.5388 14.77841394000015
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The particular method of deployment used by this Dnepr launch vehicle means that the dispersion of all the objects may be somewhat more rapid than we are commonly used to, so this may help the experts determine which object is which.

FUNcube-1 will initially be transmitting only about 30 mW of output power, this is its "Safe Mode", so a steerable yagi will greatly help reception.

Telemetry will be transmitted from the spacecraft on 145.935 MHz.

When the spacecraft is eventually transmitting data in its normal "Educational Mode" the signal is expected to be about 10dB louder.

To stay up-to-date with what has happening with the FUNcube project and, in particular, with the FUNcube-1 spacecraft please visit www.funcube.org.uk You can register for automatic email notifications of all the updates by clicking on the "follow this blog" tab towards the bottom right hand corner of the front page.

[ANS thanks Graham G3VZV for the above information]

Crossband Transponders on AMSAT Argentina November 23 Balloon Flight

AMSAT Argentina says they plan to fly a high altitude balloon on November 23 at approximately 1200 EST from Victorica, La Pampa, Argentina (36.234304S, 65.40298W Grid: FF73HS). This flight will carry launch experiments for the AMSAT Argentina LUSEX satellite.

The Betty III Payload includes:

+ FM Voice Transponder
  Uplink: 435.950 MHz 123Hz CTCSS),
  Downlink: 145.950 MHz
+ CW and APRS Beacon on 144.930/145.950 MHz
+ SSTV R-36 pictures live on 145.950 MHz.

The Mafalda Payload includes:

+ Linear Mode A Transponder for Multiple simultaneous users CW,
  PSK, JT, RTTY, Hell, etc.
  Uplink: 28.226 MHz USB
  Downlink: 145.850 MHz FM
+ PSK31 Beacon on 28.227 MHz

The flight can also be tracked via aprs.fi - search for the LU7AA-11
callsign.

[ANS thanks AMSAT Argentina for the above information]
[ANS thanks for the above information]

Happy Birthday to AO-7!

Launched on 11/15/1974 from Vandenberg Air Force Base.

Continued congratulations to all those involved in the design,
building, launch, and operations of this satellite. It's an amazing
achievement that, other than the batteries, most of the circuitry
continues to function normally 39 years after launch. Here's to
hopefully many more years of service to the amateur community!

For more information about the lead-up to and the launch of AO-7, as
well as the first years of operation, see the 1974-1981 AMSAT
Newsletters on KA9Q's website:

http://www.ka9q.net/AMSAT-Newsletter-1974.pdf

http://www.ka9q.net/newsletters.html

N4HY has a wonderful gallery of photos from the construction and
launch of AO-7 on his Smugmug page:

http://n4hy.smugmug.com/AMSAT/AMSAT-Oscar-7

[ANS thanks Paul Stoetzer, N8HM for the above information]

KySat-2 Announces Telemetry Dashboard Software and Tracking Aids

The KySat-2 CubeSat launch is scheduled as part of the ORS-3/ELaNa-4
mission on November 19 from Wallops Island, VA. The Kentucky
Space Team request that Amateur Radio stations track and help in the
collection of telemetry data.

To help track KySat-2, a web page has been setup to assist radio
amateurs. To help decode packets from KySat-2, software for radio
amateurs to download and install is available at:
http://ssl.engineering.uky.edu/amateur-radio-operators/

Initially, the software will support receive-only operation, but
after spacecraft checkout, it is intended that the software will
also support limited commanding.

An Advanced Satellite Orbit Tracking Tool to visualize KySat-2's orbit in real-time can be viewed at: http://k2asot.engr.uky.edu/

For more information on general information on KySat-2, visit: http://kysat2.engr.uky.edu/ and http://kentuckyspace.com/

[ANS thanks the KySat-2 Team at Kentucky Space for the above information]

Symposium Photos for Journal Requested by December 1

AMSAT Journal Editor JoAnne Maenpaa K9JKM would appreciate receiving selected photos, or a link to your on-line albums for photos from the 2013 AMSAT Symposium and Annual General Meeting.

With the November/December Journal in-progress it is time to begin planning for full coverage of the Symposium, Banquet, and tour of the Johnson Space Center in the January/February 2014 AMSAT Journal.

Please send you photos and/or link information to me by December 1.

Submit to
k9jmk at amsat dot org

[ANS thanks JoAnne K9JKM for the above information]

ARISS News

+ A Successful contact was made between Rancho Romero Elementary School Alamo, CA USA and Astronaut Michael S. Hopkins KF5LJG using callsign NA1SS. The contact began 2013-11-13 19:44 UTC and lasted about nine and a half minutes. Contact was direct via KJ6TWN. ARISS Mentor was W6MU.
A detailed write-up of this contact was reported in the November 13 San Jose Mercury News
http://www.mercurynews.com/breaking-news/ci_24517762/headline

+ A Successful contact was made between Cradle of Aviation Museum Garden City, NY USA and Astronaut Luca Parmitano KF5KDP using callsign IRØISS. The contact began 2013-11-04 14:24 UTC and lasted about nine and a half minutes. Contact was telebridged via IK1SLD. ARISS Mentors were W2CYK and KB9UPS.

+ A Successful contact was made between Warren County Technical School Washington, NJ USA and Astronaut Luca Parmitano KF5KDP using callsign NA1SS. The contact began 2013-11-04 14:08 UTC and lasted about nine and a half minutes. Contact was direct via KC2WT. ARISS Mentor was AA4KN.

Upcoming ARISS Contact Schedule

Salisbury Middle Schools, Salisbury, New Brunswick, Canada, telebridge via W6SRJ
Contact is a go for: Wed 2013-11-20 17:18:42 UTC

ARISS congratulations the following mentors who have now mentored over 100 schools:

Gaston ON4WF with 112
Francesco IKØWGF with 100

Total number of ARISS ISS to earth school events is 869.
Each school counts as 1 event.
Total number of ARISS ISS to earth school contacts is 848.
Each contact may have multiple schools sharing the same time slot.
Total number of ARISS supported terrestrial contacts is 46.

A complete year by year breakdown of the contacts may be found in the file.
http://www.amsat.org/amsat/ariss/news/arissnews.rtf

[ANS thanks ARISS, Charlie AJ9N and David AA4KN for the above information]

Satellite Shorts From All Over

+ Radio Amateurs Launch Fun In A Cube (Satellite)

  Satnews Publishers has just carried a story "AMSAT UK, AMSAT-NL + ISIS BV?Radio Amateurs Launch Fun In A Cube (Satellite)"
  http://www.satnews.com/story.php?number=474690875
[ANS thanks Jill Durfee and Satnews.com for the above information]

+ KUDOS, KU4OS

  ANS-293 was Lee McLamb's KU4OS 100th issue that he has edited since Dec 2007.
  Congratulations, Lee!
[ANS thanks ANS Editors for the above information]

+ ARRL Kids Day is always the first Sunday of January and the third Saturday of June, from 1800UTC – 2359 UTC. This is an excellent opportunity to demonstrate working satellites and a chance to give kids some hands on experience. This is especially true with the launch of FUNCube and other satellites next week.
[ANS thanks Sean Kutzko, KX9X for the above information]

+ 2014 Year in Space Calendars Now Available

  The Year In Space in cooperation with The Planetary Society has published their 2014 edition calandar of YearInSpace. More information can be found at
  http://www.yearinspace.com/

  They also maintain a free weekly online calendar at
  http://www.yearinspace.com/the-week-in-space.html

  In addition is a free weekly email newsletter available for subscription.
  http://www.yearinspace.com/weekly-e-mail.html
[ANS thanks Steve Cariddi, Publisher for the above information]

+ Indian Gujarat Video
  Claudio Ariotti, IK1SLD recently received a link from India about the ARISS contact (November 14, 2012) between Sunita Williams KD5PLB

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  and Gujarat Council of Science City - Ahmedabad - Gujarat.
  This is the youtube link:
  http://youtu.be/Dz7Sto3zXWg
[ANS thanks Claudio IK1SLD for the above information]

+ Minotaur-1 mass CubeSat launch November 19
  The launch window for KySat-2 and over a dozen other CubeSats from
  Wallops Island opens November 19, see
  http://amsat-uk.org/2013/11/12/kysat-2-in-november-cubesat-launch/
[ANS thanks Trevor M5AKA for the above information]

+ Czech Statocaching APRS ham radio balloon
  http://tinyurl.com/ANS321-czech-statocaching
[ANS thanks Trevor M5AKA for the above information]

+ Frequencies for the 37 satellites carrying amateur radio payloads
expected to be deployed in the next 10 days
  http://tinyurl.com/ANS321-NovCubeDeployments
[ANS thanks Trevor M5AKA for the above information]

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In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org
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